

## **AMENDMENTS TO THE CLAIMS**

### **IN THE CLAIMS:**

Please amend the claims as follows:

1. (Previously Presented) A method of representing motion of an object appearing in a sequence of images comprising deriving for each image a set of representative points representing the location of the object, deriving an approximate function representing the trajectory of a representative point in two or more of said sequence of images, and calculating an error value for said approximate function for the representative point for an image, wherein the error value is based on the change in area of the object as represented by the representative point and the area of the object with the representative point replaced by the respective approximate function value.

2. (original) A method as claimed in claim 1 wherein the error value is based on the change in area in an image.

3. (original) A method as claimed in claim 1 wherein the error value is based on the change in area in a plurality of images.

4. (Previously Presented) A method as claimed in claim 1 wherein a function approximation is derived for each co-ordinate of a representative point.

5. (Previously Presented) A method as claimed in claim 1 wherein a function approximation is derived for each representative point.

6. (Previously Presented) A method as claimed in claim 1 wherein a function approximation is done for representative points independently.

7. (Previously Presented) A method as claimed in claim 1 wherein a function approximation is done for two or more vertices in conjunction.

8. (Previously Presented) A method as claimed in claim 1 wherein the error value for an image is based on a function of the number of pixels that are in the modified object outline replacing a representative point by the function approximation value of the representative point but not the original outline and the number of pixels that are in the original outline but not in the modified outline.

9. (Previously Presented) A method of identifying selection of an object in an image in a sequence of images, wherein the object motion has a representation derived using a method as claimed in claim 1, the method comprising identifying a selected region of the image, determining the location of said object in said image using said motion descriptor, and comparing it with the selected region to determine if said object is selected.

10. (Canceled)

11. (Previously Presented) An apparatus that determines and represents motion of an object appearing in a sequence of images comprising:

a location device that derives for each image a set of representative points representing the location of the object;

an approximation device that derives an approximate function representing the trajectory of a representative point in two or more of said sequence of images; and

a calculation device that calculates an error value for said approximate function for the representative point for an image,

wherein the error value is based on the change in area of the object as represented by the representative point and the area of the object with the representative point replaced by the respective approximate function value.

12. (Canceled)

13. (Previously Presented) A computer system that determines and represents motion of an object appearing in a sequence of images comprising:

a location device that derives for each image a set of representative points representing the location of the object;

an approximation device that derives an approximate function representing the trajectory of a representative point in two or more of said sequence of images; and

a calculation device that calculates an error value for said approximate function for the representative point for an image,

wherein the error value is based on the change in area of the object as represented by the representative point and the area of the object with the representative point replaced by the respective approximate function value.

14. (Currently Amended) A computer-readable storage medium storing computer-executable process steps for determining and representing motion of an object appearing in a sequence of images, the process steps comprising:

deriving for each image a set of representative points representing the location of the object;

deriving an approximate function representing the trajectory of a representative point in two or more of said sequence of images; and

calculating an error value for said approximate function for the representative point for an image.

wherein the error value is based on the change in area of the object as represented by the representative point and the area of the object with the representative point replaced by the respective approximate function value.

15. (Previously Presented) A descriptor of motion of an object in a sequence of images derived by a method according to claim 1.